

SECRET

R. R.

1617

19 September 1966

MEMORANDUM FOR: Director, National Estimates  
SUBJECT: Submarine Characteristics Tables for  
Section III - NIPP 66

1. The following attached tables have been revised by the SIC Submarine Working Group and approved by the SIC on 16 September 1966:

Table III D 3, General Purpose Submarines  
Table III D 17, Torpedoes

2. We recommend no change be made to the following tables:

Table III D 18, ASW Depth Charges and Bombs  
 Table III D 19, ASW Ahead Throw Weapons

25X1A

### Executive Secretary

Attachment:

Tables for Section III - NIPP 66

### Distribution:

- 12 - ONE w/att.
- 1 - Each SIC member w/att.
- 1 - JAEIC & GMAIC w/att.
- 1 - OCI w/att.
- 1 - ORR w/att.

SECRET

Approved For Release 2002/01/03 : CIA-RDP79R00978A000800030009-3  
 SOVIET GENERAL PURPOSE SUBMARINES  
 ESTIMATED CHARACTERISTICS AND PERFORMANCE

	DIMENSIONS		DEPTH			SPEED			ARMAMENT		PATROL CAPABILITIES			
	Length (feet)	Beam (feet)	Displacement (tons)	Surfaced/ Submerged	Operating Depth (Feet) <sup>a</sup>	Normal Depth Limit	Collapse Depth (Feet)	Maximum Surfaced	Maximum Snorkel	Submerged Speed	Endurance (N.M.)	Torpedos or Mines	Days on Station	Radius (N.M.) <sup>b</sup>
ATTACK Nuclear SSN														
"N"	360/30		4600/5300		900		1300		16	Ukn	Max.	22/NA	32/48	
												0	8600	60
												10	7200	60
												20	5800	60
DIESEL SS														
"F"	300/26		2100/2500		900		1400		18	9.5	Max. 17.5/13 Econ. 4/200	26/52		
												0	4300	60
												10	3600	60
												20	2900	60
"Z"	295/26		2100/2500		750		1100		18	7	Max. 15.5/15 Econ. 3.5/175	26/52		
												0	4300	60
												10	3600	60
												20	2900	60
"R"	249/21		1055/1355		656		1000		18	9	Max. 15.5/12 Econ. 3.5/175	14/28		
												0	2900	40
												10	2200	40
												20	1400	40
"W"	249/21		1055/1355		656		1000		18.5	6.8	Max. 13.5/13.5 Econ. 3.5/175*	14/28		
												0	2900	40
												10	2200	40
												20	1400	40
"Q"	185/18		420/510		450		725		16	8	Max. 16/16 Econ. 2.5/125	8/16		Coastal or Inland Sea
"M-V"	165/16		350/430		300		400		15	NA	Max. 8/10 Econ. 4/40	6/12		Coastal or Inland Sea

\*The Navy member believes that the listed economical speed and endurance for the W-Class submarine is too high. He believes that the speed should be from 2.5 to 3 knots and the endurance from 125 to 150 miles.

SOVIET GENERAL PURPOSE  
Approved For Release 2002/01/03 : CIA-RDP79R00978A000800030009-3

	DIMENSIONS			DEPTH		SPEED			ARMAMENT		PATROL CAPABILITIES <sub>d</sub>		
	Length Beam (Feet)	Displacement (tons) Surfaced/ Submerged	Normal Operating Depth Limit (Feet) <sub>a</sub>	Collapse Depth (Feet)	Max. 5 min Surfaced	Maximum Snorkel	Submerged Speed Endurance (N.M.)	Tor- pe- do	Mis- siles	Days on Station	Radius (N.M.) <sub>b</sub>	Patrol Dura- tion (Days) <sub>c</sub>	
<u>Cruise Missile</u> Nuclear SSGN													
"E-I"	385/30	4,900 5,900	900	1,300	20	..	Max. 20/NA	32	6	0	8600	60	
										10	7200	60	
										20	5800	60	
"E-II"	398/30	5,200 6,200	1,000	1,500	20	..	Max. 20/NA	32	8	0	8600	60	
										10	7200	60	
										20	5800	60	
<u>Diesel SSG</u>													
"J"	280/33	2,700 3,500	1,000	1,500	16	9.0	Max. 16/12 Econ. 3/150	26	4	0	4300	60	
										10	3600	60	
										20	2900	60	
LONG BIN	275/21	1,200 1,500	656	1,000	18	5.5	Max. 12/12 Econ. 2.5/125	12	4	0	2900	40	
										10	2200	40	
										20	1400	40	
TWIN CYLINDER	249/21	1,100 1,400	656	1,000	18	5.5	Max. 12/12 Econ. 2.5/125	14	2	0	2900	40	
										10	2200	40	
										20	1400	40	

SECRET

Approved For Release 2002/01/03 : CIA-RDP79R00978A000800030009-3

FOOTNOTES

- a. Normal operating depth limit is defined as the depth to which a submarine may proceed an unlimited number of times. During emergencies, a submarine may exceed this depth to an indeterminate point approaching collapse depth and still survive.
- b. Patrol radius is calculated assuming a speed of advance during transit of six knots for diesel submarines and twelve knots for nuclear submarines as has been determined from extensive evaluation of all available information.
- c. Patrol duration is defined as the normal length of time that a submarine can remain at sea without replenishment under combat conditions and is estimated on the basis of personnel endurance, general habitability and the consumption of food, spare parts, and other consumables including fuel.
- d. Selected distances from Soviet ports in nautical miles:

From-To	Iceland	North West British Isles	Halifax	Bermuda or New York	Norfolk	Gibraltar	Panama
Kola Inlet	1,500	1,600	3,350	3,950	4,000	2,950	5,600
From-To	Seattle	Honolulu	Manila	Los Angles	San Francisco	Singapore	Panama
Petropavlovsk	3,200	2,750	3,100	3,600	3,400	4,200	6,500
Vladivostok	4,400	3,700	1,900	5,000	4,550	3,000	7,750

Approved For Release 2002/01/03 : CIA-RDP79R00978A000800030009-3

SECRET

TABLE IID 17  
SOVIET GENERAL PURPOSE NAVAL WEAPONS  
Approved For Release 2020/09/01 : CIA-RDP79R00978A000800030009-3  
OF SOVIET TORPEDOES

Designation	IOC	Diameter (inches)	Length (feet)	Propulsion	Exploder	Range/Speed (Yards)/(Kts)	Guidance	Remarks
<u>Antisurface Ship Torpedoes 1/</u>								
E 40-63	1965	15.75	14.75	Electric Silver-zinc batteries	Impact/Inertia Passive acoustic	15,000/28	Passive acoustic homer @ 25 KC Azimuth only Pattern running	Anti-escort torpedo. Has horizontal acquisition range of 600 yds against a 10 db target while running at 20 feet.
<u>Antisubmarine Torpedoes 2/</u>								
AS-80A	1962	21	25.6	Electric Lead-Acid batteries	Impact/Inertia Magnetic Induc- tion	13,000/23.3	Passive acoustic homer @ 25 KC	For ASW use only. Maximum depth 750 feet. Turn radius 90 yds. Horizontal acquisition range 1,200 yds. against 21 db target.
E 40-63A	1966	15.75	14.75	Electric Silver-zinc batteries	Impact/Inertia Active magnetic induction (verti- cal & horizontal)	15,000/23.3	Passive Acoustic homer @ 24.8 KC Azimuth & Depth.	Antisubmarine torpedo. Maximum depth 1000 feet. Horizontal acquisition range 1200 yds against a 21 db target.
E 40-63A Improved	67-68	15.75	15	Electric Silver-zinc	Impact/Magnetic	Passive 15,000/24 Active 12,000/35	Active/Passive Acoustic	For use from helicopters and low flying aircraft (50 to 6,000 feet high-altitude (15,000 to 20,000 feet), highspeed aircraft (parachute retarded), and "Petya" and "Mirka" Class PCEs, "S.O.-1" Class SC, "Poti" Class PCs, and probably all nuclear submarines.
Follow-On ASW Torpedo	1968-70	21	Unknown	Electric Silver-zinc	Impact/Magnetic	15,000/35	Active/Passive Acoustic	Submarine-launched. Depth capability, 1,500 feet. HE version 600-lb. warhead. Nuclear version without homing.

1/ In addition to the torpedoes listed on this table, steam and electric torpedoes of World War II vintage are still available for use against surface ships.

2/ All antisubmarine torpedoes have secondary antisurface ship capability.

GROUP I  
Excluded from automatic  
downgrading and  
declassification